filled with the vitellus, the author saw the abdominal integuments of the larvæ formed, completely enveloping the vitelline mass; and he then saw the hard parts of the skeleton thicken and become darker in colour, the abdomen, which was at first spheroidal, become flattened and regularly festooned behind, and the stomach and its symmetrical cæca formed, circumscribing the vitelline matter, which was gradually retracted, furnishing the material for new organs. That the business of nutrition went on actively in the bodies of these larvæ was shown by their depositing upon the glass much white matter, which proved to consist of alkaline urates. The mother had also produced a large quantity of similar excrement. The author states that these larvæ lived and digested for three months without his being able to induce them to take any nourishment; they lived on the provision derived from their mother, which was contained in the stomach.

These larvæ undergo their metamorphoses and become adult, when the males seek the females, fecundate them, and die without taking any food, which, indeed, the conversion of their rostrum into an accessory organ of copulation would prevent their doing; the females, either during or after fecundation, attach themselves to animals, from which they absorb the quantity of blood which enables them to acquire sometimes ten times their original size, and provides the materials for their numerous progeny, even throughout life in the case of the males.

The mouthless Acarina, which have been formed into the genera *Hypopus*, *Homopus*, *Trichodactylus*, *Astoma*, &c., but which the author has shown to be nymphs, also live without food in an analogous manner. Their bodies are filled with a granular amorphous matter, a sort of highly vitalized sarcode, produced by the liquefaction of the internal organs, and especially the muscles of the larvæ; life is sustained without loss, since there are no evacuations, in consequence of the complete absence of anal, respiratory, or other apertures, during the whole of this phase of their existence. The adult form which succeeds this phase is remarkable (especially in the case of the adult female) for great voracity; but many of the males, like those of *Ixodes*, eat very little or not at all, and the author believes that the males of *Sarcoptes* belong to the latter category.

M. Mégnin remarks that this fact is by no means without a parallel, and mentions the Ephemeræ and the Œstridæ as furnishing cases in point. He also refers to the same category the astomatous and fertile form of the *Phylloxera* of the oak observed by M. Lichtenstein (Bull. Soc. Ent. Fr. 1876, p. 164).—*Comptes Rendus*, Nov. 20, 1876, p. 993.

Note on the Nidification of the Aye-Aye.

By MM. A. Milne-Edwards and A. Grandidier.

Any facts that may contribute towards a more complete knowledge of the aye-aye (*Chiromys madagascariensis*) deserve the

attention of zoologists. This mammal, the affinities of which have been long disputed, is still very rare. Travellers have scarcely ever studied it in the living state; and the observations they have been able to make upon its habits and manners are almost insignificant; we therefore think it useful to indicate some new particulars as to its mode of life.

The aye-aye constructs in trees true nests resembling enormous ball-shaped birds' nests; and it is in the interior of these constructions that the female brings forth her young and nourishes it. We have just received one of these nests found by M. Soumagne, honorary consul of France in Madagascar, in the belt of forest situated halfway up the eastern slope of the great granitic mountain mass a short distance from Tamative. It is made with much care and art at the fork of several large branches of a dicotyledonous tree; its outer surface is formed of large rolled-up leaves of the *Ravinala* (or traveller's tree), which constitute a sort of impermeable covering and protect the interior, in which there is an accumulation of small twigs and dry leaves. The aperture is narrow and placed to one side. M. Soumagne surprised a female with her young one in this nest.

The most highly organized species of the Lemurine group (the Indrisinæ and true lemurs) always carry their young attached to the back or the breast, where it can easily reach the pectoral mammæ of the mother. The lower representatives of the order, however, are furnished with several pairs of mammæ, and they do not carry their young in this manner; they deposit them either in holes of trees (*Lepilemures* and *Chirogalei*) or in true nests (*Microcebi*). Each litter consists of several young, which remain for a considerable time confined to their retreat, without being able to accompany their parents. One of us has examined the nest of *Microcebus myoxinus*. It resembles on a small scale that of a crow, and is composed of small twigs interlaced, in the midst of which there is a depression with a bed of hairs, in which the young repose.

In its mode of nidification, therefore, the aye-aye closely approaches the more degraded representatives of the order Lemurina, and departs from the Indrisinæ and true Lemurs.—*Comptes Rendus*, Jan. 22, 1877, p. 196.

Note on the Phenomena of Digestion and on the Structure of the Digestive Apparatus in the Phalangida*. By Félix Plateau. (Abstract by the author.)

The 'Annals and Magazine of Natural History' have already given abstracts of several of my memoirs relating to the phenomena of digestion in the Articulata†. The present memoir is, properly speaking, only a detached chapter of a long series of researches on

* Bulletin de l'Académie Royale de Belgique, 45e année, 2e sér. tome xlii. p. 719, 1876.

† Annals and Magazine of Natural History, 4th series, vol. xvi. p. 152, (1875), vol. xviii. p. 355 (1876), vol. xviii. p. 437 (1876).